<u>CLAIMS</u>

What is claimed is:

1. A method for selecting a desired application on a smart card, wherein there are

    potentially two or more applications installed on the smart card, each application

    having a stored application identifier (AID), the method comprising:

    specifying a desired application in terms of multiple parameters;

    retrieving multiple parameters from a stored AID for an application on the smart

        card; and

    comparing the specified multiple parameters with the retrieved multiple parameters

        to determine whether or not there is a match.

2. The method of claim 1, wherein the smart card is separated into one or more

    firewalls, with each application installed on the smart card being contained within

    one of said firewalls, and wherein one of said parameters is indicative of the firewall

    in which the desired application is contained.

3. The method of claim 2, wherein one of said parameters comprises an applet ID that

    identifies an application within a firewall.

4. The method of claim 1, wherein one of said parameters comprises a registered

    application provider identifier (RID).

5. The method of claim 4, wherein said RID comprises a predetermined first portion of

the AID, and one or more remaining parameters are contained within a

predetermined second portion of the AID.

6. The method of claim 4, wherein said multiple parameters comprise an RID, a

firewall identifier, and an applet identifier.

7. The method of claim 1, wherein said smart card is brought into communication with

a terminal, and said terminal transmits a request to the smart card specifying a

desired application in terms of said multiple parameters.

8. The method of claim 7, further comprising returning to the terminal in response to

the request the AID of an application whose retrieved parameters match the specified

parameters.

9. The method of claim 7, wherein the request is received by an applet selector on the

smart card, and said applet selectors calls a method on an AID interpreter associated

with each application on the smart card to perform said retrieving.

10. The method of claim 9, wherein the AID interpreter associated with each application

performs said comparing and notifies the applet selector of whether or not there is a

match for that application

11. The method of claim 9, wherein said applet selector performs the comparing of the specified parameters with the retrieved parameters for each application.

12. The method of claim 9, further comprising transmitting the retrieved parameters from the smart card to the terminal.

13. The method of claim 1, wherein each application on the smart card contains an AID interpreter, and the retrieving is performed by said AID interpreter.

14. The method of claim 13, wherein said comparing is performed by the AID interpreter.

15. The method of claim 1, wherein said smart card is brought into communication with a terminal, and said terminal transmits a request to the smart card for a listing of the AID of each application installed on the card.

16. The method of claim 15, wherein said retrieving and comparing are performed in the terminal on each AID in the listing of AIDs received by the terminal from the card in response to said request.

17. The method of claim 16, further comprising downloading at least one AID interpreter to run on the terminal in order to retrieve the multiple parameters from a corresponding AID.

18. The method of claim 1, wherein said AID comprises additional information apart

from said multiple parameters.

19. The method of claim 1, further comprising:

bringing a first card into communication with a terminal;

bringing a second card into communication with the terminal;

wherein the terminal specifies the same desired application in terms of the same

multiple parameters for each of said first and second cards; and

wherein a first matching application having a first AID is identified on the first card

and a second matching application having a second AID is identified on the

second card, wherein the first AID is different from the second AID.

20. The method of claim 19, wherein the first AID shares a common initial portion with

the second AID, and wherein the multiple parameters are not completely contained

within said common initial portion.

21. A smart card having multiple applications installed therein, each application

comprising:

a stored application identifier (AID); and

an AID interpreter, wherein said AID interpreter is operable to retrieve and parse the

stored AID into multiple parameters for identifying the application.

22. The smart card of claim 21, wherein the smart card is separated into one or more

firewalls, with each application installed on the smart card being contained within

one of said firewalls, and wherein one of said parameters is indicative of the firewall

in which the application is contained.

23. The smart card of claim 22, wherein one of said parameters comprises an applet ID

that identifies an application within a firewall.

24. The smart card of claim 21, wherein one of said parameters comprises a registered

application provider identifier (RID).

25. The smart card of claim 24, wherein said RID comprises a predetermined first

portion of the AID, and one or more remaining parameters are contained within a

predetermined second portion of the AID.

26. The smart card of claim 24, wherein said multiple parameters comprise an RID, a

firewall identifier, and an applet identifier.

27. The smart card of claim 21, wherein said smart card further comprises a

communication interface for communication with a terminal, wherein the smart card

is operable to receive a request from the terminal specifying a desired application on

the smart card in terms of said multiple parameters.

28 The smart card of claim 27,wherein the smart card is operable to return to the

terminal in response to the request the AID of an application whose retrieved

parameters match the specified parameters.

29. The smart card of claim 27, wherein the smart card further comprises an applet

selector, said applet selector being operable to receive the request and to call a

method on an AID interpreter associated with each application on the smart card,

wherein said AID interpreter is responsive to said call to retrieve the corresponding

AID.

30. The smart card of claim 29, wherein the AID interpreter associated with each

application is responsive to said call to compare the retrieved parameters with the

specified parameters and to notify the applet selector of whether or not there is a

match for that application

31. The smart card of claim 29, wherein said applet selector is operable to receive the

multiple parameters of the retrieved AID for an application, and to compare the

received parameters with the specified parameters from the terminal.

32. The smart card of claim 29, wherein said applet selector is operable to receive the

multiple parameters of the retrieved AID for an application, and to return the

retrieved parameters to the terminal.

33. The smart card of claim 21, wherein said smart card further comprises a
communication interface for communication with a terminal, wherein the smart card
is operable to receive a request from the terminal and to respond to the request by
returning the retrieved multiple parameters to the terminal.

34. A terminal for use with a smart card having multiple applications installed therein,
each application comprising an application identifier (AID) and an AID interpreter,
wherein said AID interpreter is operable to retrieve and parse the AID into multiple
parameters for identifying the application, and wherein said terminal comprises at
least one set of multiple parameters for identifying a desired application on the smart
cart, and a communications interface for exchanging messages with the smart card.

35. The terminal of claim 34, wherein the terminal is responsive to being brought into
communication with a terminal to transmit a request to the smart card for a listing of
the AID of each application installed on the card.

36. The terminal of claim 35, wherein the terminal is operable to parse an AID received
from the smart card into multiple parameters, and to compare the multiple
parameters received from the application with the multiple parameters for the desired
application.

37. The terminal of claim 36, wherein the terminal is operable to identify the location of at least one AID interpreter to run on the terminal in order to parse the multiple parameters from a corresponding AID.

38. The terminal of claim 36, wherein the terminal is operable to download said at least one AID interpreter from the identified location to run on the terminal in order to parse the multiple parameters from a corresponding AID.

39. Apparatus for selecting a desired application on a smart card, wherein there are potentially two or more applications installed on the smart card, each application having a stored application identifier (AID), the apparatus comprising:

means for specifying a desired application in terms of multiple parameters;

means for retrieving multiple parameters from a stored AID for an application on the smart card; and

means for comparing the specified multiple parameters with the retrieved multiple parameters to determine whether or not there is a match.

40. A computer program product comprising instructions on a medium, wherein said instructions when loaded into a machine cause the machine to perform a selection of a desired application on a smart card, wherein there are potentially two or more applications installed on the smart card, each application having a stored application identifier (AID), said selection being performed by:

specifying a desired application in terms of multiple parameters;

retrieving multiple parameters from a stored AID for an application on the smart

card; and

comparing the specified multiple parameters with the retrieved multiple parameters

to determine whether or not there is a match.

41. The computer program product claim 40, wherein the smart card is separated into

one or more firewalls, with each application installed on the smart card being

contained within one of said firewalls, and wherein one of said parameters is

indicative of the firewall in which the desired application is contained.

42. The computer program product of claim 41, wherein one of said parameters

comprises an applet ID that identifies an application within a firewall.

43. The computer program product of claim 40, wherein one of said parameters

comprises a registered application provider identifier (RID).

44. The computer program product of claim 43, wherein said RID comprises a

predetermined first portion of the AID, and one or more remaining parameters are

contained within a predetermined second portion of the AID.

45. The computer program product of claim 43, wherein said multiple parameters

comprise an RID, a firewall identifier, and an applet identifier.

46. The computer program product of claim 40, wherein said smart card is brought into communication with a terminal, and said terminal transmits a request to the smart card specifying a desired application in terms of said multiple parameters.

47. The computer program product of claim 46, wherein the selection is further performed by returning to the terminal in response to the request the AID of an application whose retrieved parameters match the specified parameters.

48. The computer program product of claim 46, wherein the request is received by an applet selector on the smart card, and said applet selectors calls a method on an AID interpreter associated with each application on the smart card to perform said retrieving.

49. The computer program product of claim 48, wherein the AID interpreter associated with each application performs said comparing and notifies the applet selector of whether or not there is a match for that application

50. The computer program product of claim 48, wherein said applet selector performs the comparing of the specified parameters with the retrieved parameters for each application.

51. The computer program product of claim 48, wherein the selection is further

performed by transmitting the retrieved parameters from the smart card to the

terminal.

52. The computer program product of claim 40, wherein each application on the smart

card contains an AID interpreter, and the retrieving is performed by said AID

interpreter.

53. The computer program product of claim 52, wherein said comparing is performed by

the AID interpreter.

54. The computer program product of claim 40, wherein said smart card is brought into

communication with a terminal, and said terminal transmits a request to the smart

card for a listing of the AID of each application installed on the card.

55. The computer program product of claim 54, wherein said retrieving and comparing

are performed in the terminal on each AID in the listing of AIDs received by the

terminal from the card in response to said request.

56. The computer program product of claim 55, wherein said selection is further

performed by downloading at least one AID interpreter to run on the terminal in

order to retrieve the multiple parameters from a corresponding AID.

57. The computer program product of claim 40, wherein said AID comprises additional

information apart from said multiple parameters.

58. The computer program product of claim 40, wherein said selection is further

performed by:

bringing a first card into communication with a terminal;

bringing a second card into communication with the terminal;

wherein the terminal specifies the same desired application in terms of the same

multiple parameters for each of said first and second cards; and

wherein a first matching application having a first AID is identified on the first card

and a second matching application having a second AID is identified on the

second card, wherein the first AID is different from the second AID.

59. The computer program product of claim 58, wherein the first AID shares a common

initial portion with the second AID, and wherein the multiple parameters are not

completely contained within said common initial portion.